

Accessing materials data faster, more reliable and more easily: Shaping scientific knowledge into a data platform

Start of joint project »Innovation Platform MaterialDigital«

How will scientific work and product development evolve in the future? How will we share new insights with colleagues, who might work on the other side of the planet? Funded by the German Federal Ministry for Education and Research, the joint project »Innovation Platform MaterialDigital« has recently been established to pave the way towards a digital infrastructure for material science research data. The objective is to create a virtual materials data space that allows a systematic handling of materials data.

Digitalization is already setting new benchmarks for scientific disciplines, as it promises to make acquired information easily accessible and thereby strongly accelerate the gain of knowledge. Appropriate data spaces are not only able to thoroughly organize knowledge and thus query it more efficiently, but also allow for the addition of information through modern statistical methods, thereby generating new insights.

Funded by the German Federal Ministry for Education and Research, the Innovation Platform MaterialDigital will pioneer in the digital standardization of materials data and materials information. Within the joint project between the Bundesanstalt für Materialforschung und -prüfung, the Fraunhofer Institute for Mechanics of Materials IWM, the Helmholtz-Association (represented by the Karlsruhe Institute for Technology KIT), the Leibniz Institute for Materials Engineering - IWT, and the Max-Planck-Institut für Eisenforschung the partners will develop initial approaches for the necessary complex data management. To this end, contributions from all sectors working with materials data, such as companies, non-university research institutes and universities will be included.

To create a data platform, a number of questions must be addressed: for example, a shared infrastructure does not only rely on IT and server management, standardization and universal expressions, and ontologies but also on defining the rights of authors, data sovereignty and data protection. With the launch on 1st of July, 2019 the project partners intend to specify these and other challenges and to develop initial solutions. Close ties to the materials science community are supposed to guarantee that these approaches meet practical requirements – and thus will be suitable for a subsequent application by the relevant stakeholders. After all, a transformation as fundamental as digitalization is only manageable by the material science community as a whole.

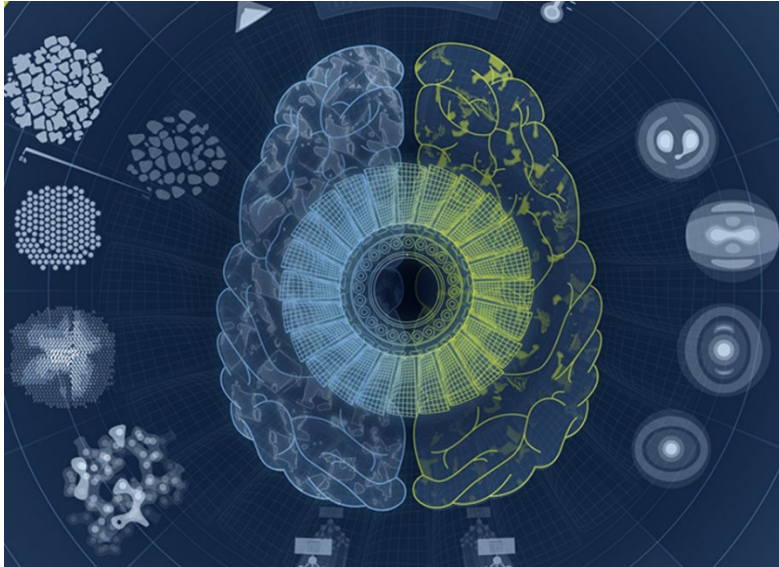


Image: Fraunhofer IWM

Author: Bundesanstalt für Materialforschung und -prüfung

The Max-Planck-Institut für Eisenforschung GmbH (MPIE) conducts basic research on metallic alloys and related materials to enable progress in the fields of mobility, energy, infrastructure, medicine and safety. It is financed by the Max-Planck Society and the Steel Institute VDEh. In this way, basic research is amalgamated with innovative developments relevant to applications and process technology.

Contact:

Yasmin Ahmed Salem, M.A.
Press and Public Relations Officer
E-Mail: y.ahmedsalem@mpie.de
Tel.: +49 (0) 211 6792 722
www.mpie.de

